## POSSIBLE SEA-SERPENTS



NOTHING is easier than to deny a thing. There are plenty of people who pooh-pooh the seaserpent, asserting point-blank that no such animal exists. I will not say that they are wrong; but it

certainly seems to me not unlikely that they may be mistaken; for undeniably a far greater mass of sworn testimony in the creature's behalf has been placed on record than would be necessary to prove any ordinary case in a court of law. Let us give the sea-serpent the fair chance it deserves, rendering judgment on the evidence just as if any other question was under consideration.

It is not necessary to prove that the creature is a serpent. In my opinion, if it exists, it almost certainly is not a snake, and probably not a reptile at all. Supposing that there is such an animal, it may be a gigantic fish of peculiar form, as yet unknown to science; it may be a mammal, or it may be even a mollusk. These various possibilities I presently shall have an opportunity to discuss.

Meanwhile let us consider the question whether there is any known animal that corresponds to the familiar descriptions of the sea-serpent—descriptions which, it must be admitted, agree to a surprising extent. The reply must be a negative, as far as any creature now recognized as surviving is concerned. But on the other hand, there is one animal, supposed to be extinct but possibly not so, which, if it still lives, would answer to all important specifications in the case. I refer to the zeuglodon. We have excellent reasons for believing that the zeuglodon, a mammal related to the modern tribe of seals, ceased to exist before the close of the early Tertiary, to which period it belonged; but we cannot be perfectly sure.

It is hardly necessary to say that the sea-serpent, if it exists, is to be recognized not as a single individual, beheld from time to time as it travels through various seas, but as a gigantic marine species, possibly not uncommon in the depths of the ocean, though rarely seen at the surface. The creature, according to popular tradition, is seventy feet or more in length; it has an enormously long tail; its head (four or five feet long, perhaps) is small in proportion to its vast bulk, and owing to the peculiar structure of the neck is reared easily to a considerable height above the water.

This description corresponds perfectly to that of the zeuglodon, whose bones are found to-day scattered along our southern coasts, in Alabama and elsewhere. In its day it was a numerous species, inhabiting the marine shallows. Undoubtedly it was exceedingly predatory and ferocious. It possessed two powerful flippers in front, for use in swimming (many a sea-serpent is credited with such flippers, by the way), and along its neck were arranged in pairs a number of large, bony, scale-like plates.

It is not necessary to go back into the geologic past, however, in order to find an animal which, making due allowance for errors of human observation, may be regarded as presenting a fair likeness to the traditional sea-serpent. Such a creature now lives—the calamary, or giant squid. It is a mollusk, related to the common cuttlefishes, and while rare and little known, is certainly one of the largest and most formidable of existing creatures. A full-grown specimen has eyes a foot in diameter—the largest eyes probably that ever belonged to an animal, unless the ichthyosaur be excepted—and in addition to eight shorter arms it possesses two mighty tentacles sixty to eighty feet in length, with which to grasp its prey. The poor fisherman of the Indian Ocean greatly dreads this monster. Such squids are comparatively plentiful in those seas, and he never knows at what moment he may

## By FREDERIC A. LUCAS

Director of the Museum of the Brooklyn Institute of Arts and Sciences

see two huge greenish eyes, bigger than dinnerplates goggling greedily at him over the gunwale of his boat—a warning that presently a frightful snakelike arm, provided with powerful suckers for clinging, will be thrown about him, dragging him overboard and into the depths, to be devoured at leisure.

Most appropriate it will be at this point to tell the story of the bark Pauline, returning home from the Indian seas in 1875. Her mate and crew made oath before a magistrate in a police court of Liverpool to the effect that on July 8 of that year, in latitude five degrees and thirteen minutes south and longitude thirty-five degrees west, they had observed three large sperm-whales, one of which was wrapped around the body by two turns of what appeared to be a huge scrpent. The head and tail of the scrpent seemed to have a length beyond the coils of about thirty feet. It whirled the whale round and round for fifteen minutes, and then suddenly dragged the unfortunate cetacean head-first to the bottom.

Now, if such testimony, given by a number of individuals who signed their names to the affidavit, was offered in behalf of anything else than a seaserpent, it would be accepted pretty generally as worthy of belief. It seems altogether probable that the mariners at least thought that they were telling the truth, and it must be admitted that a sailor knows a whale when he sees one. As for the party of the other part, the description one would think could apply only to a calamary, which, if this theory be correct, must have been engaged in a fight with the cetacean. The squid must have been a huge one, but no larger necessarily than the specimen to which belonged a fragment of a tentacle picked up on the northwest coast by Dr. Dall of the Smithsonian Institution. From the size of the cup-like suckers on the fragment, it was reckoned that the entire tentacle hardly could have been less than eighty feet in length.

Like the common squid, whose skeleton furnishes a substance for canary-birds to sharpen their bills upon, the huge calamary swims backward, dragging its tentacles behind, accomplishing locomotion by forcing water out through a sort of siphon, and sometimes erecting its tail (provided with horizontal rudder-like flanges) a considerable distance above the surface of the sea. If seen under such circumstances, the tail almost inevitably would be mistaken for a head, while the enormously long arms trailing sinuously behind would appear to represent a snaky tail. Make allowance for a little imagination on the part of the observer, and you have the sea-serpent, to all intents and purposes, complete.

Here then, we have an entirely possible seaserpent, approximately equal in size to the monster of which we have heard so much, corresponding in most important respects to the creature reported by so many fairly reliable witnesses, and which has the great advantage of being an animal actually known to exist at the present time. The mere fact that it is a mollusk instead of a reptile, and that its head may have been mistaken for its tail, does not militate against its acceptability as a realization in fact of the quasi-fabulous haunter of the mysterious depths of the ocean. It already has been proved beyond doubt that the giant squid is the original of the fabled kraken, famed in Norwegian legends, of which more marvelous stories are told than ever were related in regard to the sea-serpent.

The most authentic evidence on record in behalf

of the sea-serpent was given by the officers and crew of the British ship Dædalus, and was transmitted to the British Admiralty in the form of a report by the commanding officer, Captain McQuhae, in 1848. He stated

that on August 6 of that year, in latitude twentythat on August 6 of that year, in latitude twenty-four degrees and forty-four minutes south, and longi-tude nine degrees and twenty-two minutes east, one of his midshipmen, Mr. Sartoris, saw "something very unusual" rapidly approaching the vessel. He "re-ported it to the officer of the watch, Lieutenant Drummond, with whom and Mr. William Barrett, the master, I was walking the quarter-deck. On our attention being called to the object, it was discovered to be an enormous serpent, with head and shoulders kept constantly about four feet above the surface of the sea, while, as nearly as we could approximate, there was at least sixty feet of the animal visible beyond. It passed so close under our lee quarter that had it been a man of my acquaintance I that had it been a man of my acquaintance I should easily have recognized his features with the naked eye. It held on its course at twelve to fifteen naked eye. It held on its course at twerve to make miles an hour, apparently on some determined purpose. Behind the head, which was without doubt that of a snake, it was fifteen or sixteen inches in diameter. Never, during the twenty minutes it continued in sight of our glasses, was it once below the surface of the water. In color it was dark-brown, but yellowish-white about the throat. It had no fins, but something like the mane of a horse. The monster was seen by the quartermaster, the boatswain's mate and the man at the wheel, in addition to myself and the officers above-mentioned.'

This, it must be admitted, is testimony which cannot be explained away or cast aside as of no importance. We cannot attribute it to illusion, to ignorance, or to wilful deception. A British naval officer does not go out of his way to invent a lying report for the entertainment of the Admiralty, and it will be noticed that Captain McQuhae took good care to back up his statement with the evidence of a number of his officers and men, who also signed the document.

Leaving aside the question as to what sort of animal this actually was, and admitting that it must have been a monster of some kind not familiar nor easily identified, the fact is worth mentioning that two months and a half later, on September 20, the officers and crew of the American brig Daphne, in latitude four degrees and eleven minutes south, and longitude ten degrees and fifteen minutes east, beheld an extraordinary creature, which seems to have resembled in all important respects the one seen by the mariners of the Dædalus. One of the deck guns was brought to bear upon it, charged with spikes, nails and whatever other pieces of iron could be got at the moment, and was fired at a distance of about forty yards. It "immediately reared its head in the air and plunged violently with its body, showing that the shot had taken effect." The Daphne then stood toward the brute, which was "foaming and lashing the water at a fearful rate." However, as the brig approached, it made off at a rate of fifteen or sixteen knots an hour. Its length was estimated at one hundred feet.

We have mentioned a possible mammal and a not unlikely mollusk as corresponding with reasonable accuracy to the description of the conventional sea-serpent. But may it not be a fish? Dr. Theodore Gill, one of the most famous of living naturalists, while not himself an advocate of the sea-serpent, suggests that possibly the actual original of the monster may be a "giant selachian related to the basking-shark, with an elongated